$1.00

The Boston Computer Society

The Wireless Bitstream

The Newsletter of the BCS Amateur Radio Special Interest Group

Volume #2 Number #7 November 1990

Services Available on TCP/IP

by Charlie Ross, NC1N

What can you do with TCP/IP? The standard answer says you can do electronic mail with SMTP, file transfers with FTP, keyboard to keyboard using TELNET, query FINGER services, etc. Actually, TCP/IP is a lot of fun! But for newcomers (and we've got several now because of our September and October meetings), how do you find other stations on the network?

The answer: using the list below! This is a living document, one which will be regularly updated. Its being published here and in *The NE TCPer* as well. And its available on the air, in the Services directories at both ka1mf.ampr.org and nc1n.ampr.org.

So, whether you're just starting, or have been using TCP/IP for a while... we hope you find the following list helpful.

ANONYMOUS FTP FILE SERVERS

The following stations have files available on-line for anonymous FTP. To access these servers, establish an FTP session using the user name anonymous and your call sign as the password. Then, browse, copy files, and enjoy!

Host Name: n1gcr.ampr.org
Sysop: Mark Hochman, N1GCR
For info, contact:
n1gcr@n1gcr.ampr.org

Mark has a dual system: TCP/IP and landline BBS (called InterVision) at his New Hampshire QTH. Like most BBSs, he carries lots (about 18 MB) of IBM type programs there, some of which are ham related. Some are free and some are shareware. To get an idea of what's available, users should retrieve the file files.bbs. This gives a summary and size of each program available.

In particular, Mark would like to draw peoples attention to his \arc\windows subdirectory. In this area he has almost 3 MB of Windows 3.0 software. This subdirectory also has its own files.bbs listing.

Host Name: k1ne.ampr.org
Sysop: Bill Becker, K1NE
For info, contact:
k1ne@k1ne.ampr.org

Bill has a number of gif pictures and display programs. The programs are in the files subdirectory, and the pictures are in the files\gif subdirectory. K1NE is on the air 24 hours a day.

Host Name: wa1phy.ampr.org
Sysop: DoC Willard, W1EO
For info, contact:
w1eo%wa1phy@bbs.wa1phy

(Continued on Page 3, *TCP/IP*)

The Future of the BCS Ham Group

by Tom Walsh K1TW

The Question

What kind of BCS Amateur Radio group would you like to see next year? Are you willing to become involved to create the group you want? These are the questions we need to answer during the next couple months in order to determine the future direction of the group.

There is a questionnaire in this issue which we are asking you to take a few moments and fill out. **Please return it to us as quickly as possible** so we can find out a little about our readers. If you can, reserve Tuesday February 5 and come to the Amateur Radio SIG meeting where we will discuss and, we hope, chart the future role for the SIG.

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The Wireless Bitstream
Newsletter of
The Boston Computer Society
Amateur Radio
Special Interest Group
Tom Walsh, K1TW, Editor

Director	Barry M. Porter, KB1PA
Asst. Director	Tom Walsh, K1TW
Vice Director	Charlie Ross, NC1N
Seminars	Paul Graveline, K1YUB
Board Member	Tom McGee, KA1TOX
Board Member	Ron Alpert, KA1UGD

Software Librarians

Macintosh ..... OPEN
Commodore 64/128 .. Larry Porter
Amiga ..... Bob Wroblewski
Atari–ST ..... John Langner, WB2OSZ
IBM–Compatible ..... Robert Evans
Apple II ..... Terry Stader, KA8SCP

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September/October Meeting Report

by Charlie Ross, NC1N

September and October were Parts One and Two, respectively, of our presentation on "Starting from Scratch with TCP/IP." September's presentation focused on IBM PC compatibles, and was hosted by Eric Cottrell, WB1HBU, and Barry Porter, KB1PA. October's presentation focused on the Macintosh, and was hosted by Charlie Ross, NC1N, and Terry Stader, KA8SCP. (In addition to "clones" and Macs, the software is available for the Amiga, Atari ST, and Unix machines.)

In addition to the computer, you need several other things. First, you need a terminal node controller, or TNC. In order to run TCP/IP, the TNC must allow operation in "KISS," or "Keep It Simple, Stupid," mode. KISS mode gives the computer the opportunity to control the TNC more tightly than in regular packet mode. The TNC, in turn, is used to provide the interface to your radio.

The key to amateur TCP/IP is the KA9Q Internet Package software. The software, although copyrighted, is distributed free for amateur use. There are two programs. "Net" runs the actual on–air TCP/IP; "BM" (for Bdale's Mailer) is a mail–formatting program. There are a number of configuration files which need to be set up. Documentation is also provided. Before you get on the air, you need to take out an IP Address from a regional coordinator. This address, in turn, must be edited into the configuration files using an ordinary text editor.

Help is available for people getting started, including help in getting the software or an IP address. See any of the presenters at one of our meetings... or send packet mail to NC1N @ WA1PHY.MA or KA8SCP @ WA1PHY.MA.

Important Information about the BCS Ham SIG!

Meeting Time and Directions

The BCS Amateur Radio SIG meets on the first Tuesday of each month in the auditorium at GTE Laboratories, Waltham, Massachusetts. Anyone with an interest in amateur radio or shortwave listening (swl) applications for the personal computer is invited and welcome to attend. Directions: Take Route 128 Exit 27B, Winter Street, West for a 1/4 mile. Turn left at Sylvan Road. Park in the inner courtyard.

Use Our BBS:

You are encouraged to use the Ham Radio Section on the BCS MAC Multi-line BBS (617) 625-6747 (300-2400 baud). When you call, select "J"ump to other BCS groups from the main menu; then select 1 for the Ham Radio Area. There are three areas: 1) for general messages (local); 2) for the National HAMECHO and 3) for PD/Shareware files. Please use the local message area to discuss issues of interest to computer hams and swls or to seek advice and help.

Newsletter Contributions

Individual contributions to the *Wireless Bitstream* are always welcome. In addition, we are currently seeking regular contributors/columnists on all radio-related subjects involving personal computers. Contributions to the newsletter can be made by 1) using private message addressed to Tom Walsh on the BCS Mac BBS (617-625-6747), 2) via internet addressed to tdw1@gte.com or 3) US Mail to **Tom Walsh, K1TW, 9 Wildwood Drive, Bedford, MA, 01730.**

(*TCP/IP*, Continued from page 1)

WA1PHY is located at MITRE in Bedford. Its well-known as a packet BBS (see the listing for bbs.wa1phy under Gateways) and actually is a complex node with two different computers. The host wa1phy.ampr.org contains an extensive set of files available for FTP. They cover a variety of subjects of interest to TCP operators.

Note: PHYs FTP area used to be located on the bbs.wa1phy node. However, the bbs.wa1phy address is now dedicated to the packet mail gateway service.

SERVICES AVAILABLE THROUGH SMTP

Services available through SMTP? Isn't SMTP a mail protocol? Well, yes. But the following systems each offer something special... either the operator will offer help in the form of answers to questions, or is looking for some kind of input from you. So, they're included in our list of services.

Host Name: n1gcr.ampr.org
Sysop: Mark Hochman, N1GCR
Send SMTP Mail To:
netcper@n1gcr.ampr.org

Mark is the editor of *The NE TCPer*. He is always looking for interesting articles.

Please send anything you feel others would be interested in hearing about to netcper@n1gcr.ampr.org. Sending via SMTP is fine. Special arrangements for FTP submission can be made (especially if you're a regular contributor).

Host Name: ka1mf.ampr.org
Sysop: Don Hughes, KA1MF
Send SMTP Mail To:
ka1mf@ka1mf.ampr.org

Don is the amateur radio IP address coordinator for Eastern and Central Massachusetts. Any licensed ham in the EMA/CMA area needing an address should contact Don. The information needed is: name, callsign, host name(s) (if special or multiple), and QTH. In addition to his smtp address, Don can be reached at KA1MF @WA1PHY in the W0RLI type packet mail world, and also handles requests passed through a third party (e.g., a current TCP/IP operator forwarding a request for a newcomer).

Don also responds to mail requests for help, particularly from newcomers. Don is most familiar with the IBM versions of the KA9Q software.

Host Name: nc1n.ampr.org
Sysop: Charlie Ross, NC1N
Send SMTP Mail To:
nc1n@nc1n.ampr.org

Charlie is the keeper of this amprnet services list. If you would like to contribute an entry, or revise something that already appears, please send him mail. It is periodically published in several newsletters and maintained for anonymous FTP at several locations.

He's also very active within the Boston Computer Society (BCS) Amateur Radio Group. As such, any questions about the BCS can be addressed to him. He enjoys helping beginners get started particularly with the Macintosh TCP/IP software and tries to respond to questions promptly.

Host Name: ka1syf.ampr.org
Sysop: Frank Knight, KA1SYF
Send SMTP Mail To:
ka1syf@ka1syf.ampr.org

Frank is an answer man for NET/NOS, and is happy to respond to user queries. He's had a lot of experience working with, and adapting, the source code.

Host Name: balrog.k8lt.ampr.org
Sysop: Gary Grebus, K8LT
Send SMTP Mail To:
glg@balrog.k8lt.ampr.org

Gary is the IP address coordinator for New Hampshire. Any licensed ham in the NH area needing an address should contact Gary. The information needed is: name, callsign, host name(s) (if special or multiple), and QTH. Garys W0RLI packet address is K8LT @ WB1AES. On the Internet, he's reachable at grebus@nobozo.enet.dec.com. He handles third-party requests.

FINGER SERVICES

Finger services are among the simplest to use! Just establish a finger session as indicated in the description, and the remote system will send you the information as a text display.

Host Name: n1ewb.ampr.org
Sysop: Ned Kroeker, N1EWB
For info, contact:
n1ewb@n1ewb.ampr.org

Ned maintains an on-line callbook server covering 1 and 2 ham calls. To look someone up, finger %callsign@n1ewb. For example, to get a listing on nc1n, finger %nc1n@n1ewb. Don't forget the % sign!

Host Name: ke3z.ampr.org
Sysop: Jon Bloom, KE3Z
For info, contact:
ke3z@ke3z.ampr.org

Jon maintains the Connecticut News service. Finger news@ke3z to get an on-line listing of current noteworthy happenings.

Host Name: ka8scp.ampr.org
Sysop: Terry Stader, KA8SCP
For info, contact:
ka8scp@ka8scp.ampr.org

Terry maintains the Eastern/ Central Massachusetts Update service. Finger update@ka8scp to get a current, on-line newsletter of area TCP/IP news and events.

(Continued on Page 6, *TCP/IP*)

(*Future* Continued from page 1)

A Little History First

Just over two years ago, Barry Porter KB1PA, Charlie Ross NC1N, and myself along with several other dedicated folks worked to establish the BCS Amateur Radio Special Interest Group (SIG). All of us felt the country's largest computer user organization surely needed an interest group devoted to radio aspects of the computer hobby. After lots of hard work to comply with BCS requirements for establishing a new SIG, and an enthusiastic reception from many BCS members, our group was welcomed into the BCS in June 1989. A respectable number of computer enthusiasts have since been introduced to amateur radio and we have likewise introduced the BCS to a fair number of amateur radio operators.

I'm quite proud of what we have accomplished. I would like to see this group continue growing and flourish. However, Barry, Charlie, and I don't have as much personal time today to give to the group that we had two years ago during its formation. Charlie NC1N will be a new father not long after you read this. Barry and I are facing increased professional demands on our time. To keep the group going, we are going to need your help now!

Second, Where are we Today? What do we currently do?

Group Size: Our group has been showing consistent growth every month. We serve 365 BCS newsletter subscribers as of the latest figure available on October 10. The newsletter is sent to approximately 20 additional people under a courtesy or exchange arrangement.

Meetings: We meet every month on the first Tuesday at GTE Laboratories in Waltham Mass. We typically draw between 20 and 50 participants depending on the topic and, I think, have offered some very interesting speakers. Our meetings are open to everyone, BCS member or not. However, repeated surveys of attendees show an average of 70-80% of those attending are BCS members. This proves that BCS members are supporting our group and are our primary audience. Yet, despite several requests, no one has stepped forward to help arrange meetings.

Wireless Bitstream: Our newsletter is popular and is issued every two months. BCS Headquarters is happy because our newsletter publication schedule is very reliable. Special thanks go to Charlie NC1N, Drew KA1M, Paul K1YUB, Ron KA1UGD, and Peter WK9K who have provided the majority of our material thus far. How about some of you other good folks getting involved by contributing to the newsletter? Tell us about your computers and radio equipment, your interests , ask questions, or make announcements. If you have a particular expertise or interest, you could quite possibly become a regular columnist. But, you must volunteer first!

Telephone BBS: Have you called it recently? We are now linked with several other boards in Eastern Massachusetts including Cape Cod. Join the BCS Ham Radio roundtable covering both ham radio and shortwave listening.

Beginner Help: Last year we ran a successful Novice class. This year we ran a three part beginner's series devoted to getting people up and running with tcp/ip. This was the only effort of its kind in the Boston area. Lot's of software was distributed free and many happy new users are now on the air.

Software Library: The library has been harder to launch than we thought. We have several dedicated librarians who have gathered software for the library. But we have been hampered by an inability to find a single person to pull it all together into a single catalog and establish a mail order procedure. Recently, one person has expressed willingness to handle the mail order distribution of software but if someone is interested in serving as the single overall coordinator for the library, please come forward now. We don't want the hard work of our individual librarians to be lost.

Third, Where are we heading?

This can only be answered by the active involvement of our SIG members. Let me state it bluntly: *The group will only do what the active participants are interested in. No more, no less.* If you aren't actively involved, you really can't complain about what the other folks choose to do.

We are taking a fresh look at where we go from here. As I said, the Director's (i.e., Barry KB1PA, Charlie NC1N and Tom K1TW) have much less time today than two years ago. This slack must be taken up by others now, else the group will support fewer general activities and concentrate only on special projects and interests.

The questionnaire is to get you thinking about what you'd like to see supported, but more importantly what you are also willing to support with some of your time. After thinking about this please return the questionnaire, write to me, and if you are in the Boston area come to the February 5 meeting. We want everyone interested to have a chance to be involved in the planning. Let me mention some possibilities for you to consider.

Wireless Bitstream: Our current philosophy is to give priority to the newsletter over meetings. Contributors and contributions to the newsletter are essential. If we don't have sufficient contributions to maintain the quality of the Bitstream, we will change it to quarterly instead of bimonthly. Our circulation is large enough to attract advertising which could help fund projects or an expanded newsletter. A volunteer advertising manager could get this kicked off.

(Continued on Page 5, *Future*)

(*Future* Continued from page 4)

Meetings: Unless we have one or more volunteers to arrange meetings, expect fewer guest speakers. If no one volunteers, we plan to use the meetings to provide more support for the special projects that our active members want with fewer general interest topics.

Projects: Interest has been shown in establishing one or more technical projects. One possibility is to establish cooperation amongst the four Digital or Packet Groups in the Boston area (i.e. BCS, NEPRA, NE TCPers, and NEDA) to construct a high speed network. There is considerable interest both within and outside our BCS group to initiate activity aimed at establishing experimental 56 Kbps links and perhaps later at even higher speeds.

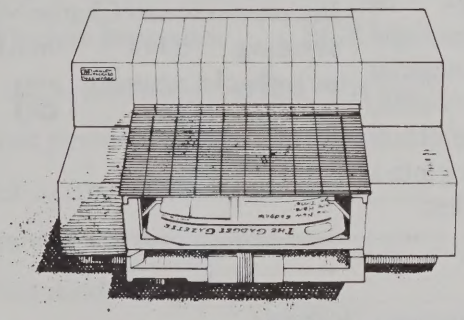
Interest Groups: There seems to be strong interest in establishing an SWL interest group. Currently, there is no such organized activity in the Boston area. We have pretty strong SWL support on our BBS and at meetings, and SWLing is a great way to introduce newcomers to the radio hobby. Many SWLs later become hams, and many hams also discover SWLing. Whether this activity will be under the BCS umbrella, or through an established national SWL group is currently being considered.

Other interest groups are also possible if volunteer leaders wish to propose them.

BCS Discounts: BCS has a strong tradition of arranging discounts for members on equipment and software. This is a major benefit of BCS membership. The possibility exists that we might be able to do this on amateur radio related products, if someone is willing to do the leg work.

Your Turn: These are just some ideas on where we are going. What are you interested in supporting? Please take the time now and send us your comments, and especially offers of help. The BCS has a strong tradition of volunteer activists. Tell us what you want to do. What position you can volunteer for (e.g., a Group Director position, Interest Group Leader, Meeting Planner, Newsletter, Correspondence Secretary, Beginner Support, Phone Support, Software Library Coordinator, etc.). You do not have to be a Boston area resident. There are many ways our National Members can participate. — Fill out the Questionnaire. — Write to me. — Come to the February 5 Meeting! —

All Right!



A great deal from HP: Buy an HP DeskWriter printer for your Mac between October 15 and December 31, 1990, and you'll get the best price ever* on the 300 dpi print quality you've always wanted, plus a DeskWriter Font Collection—a $195 value—FREE! See your HP dealer today.

HEWLETT PACKARD

*List price now $995.

Please Now turn to Page 7 and fill out the very important questionnaire

(*TCP/IP*, Continued from page 3)

GATEWAY SERVICES

There are several different kinds of gateways available. The one thing in common is that they provide a gateway, or interface, between two different communications systems. (TCP/IP "switches" often are gateways between different packet frequencies, but we will cover them in a separate listing.)

Host Name: bbs.wa1phy.ampr.org
Sysop: DoC Willard, W1EO
For info, contact:
w1eo%wa1phy@bbs.wa1phy

One of the most heavily-used nodes on the regional amprnet, bbs.wa1phy provides a gateway from SMTP into the traditional packet mailbox/bbs world. Anyone can send mail through the gateway as follows. To send mail to the packet address:

CALL @ BBS (for example, NC1N @ WA1PHY)

send SMTP mail to:

call%bbs@bbs.wa1phy (for example, nc1n%wa1phy@bbs.wa1phy)

the gateway will convert it to regular packet mail and send it along its way.

DoC can configure the gateway to auto-forward in the other direction as well. Certain constraints apply, however. First, WA1PHY must be established as your home bbs. Second, you must only use your callsign as your SMTP user name (e.g., nc1n@nc1n rather than charlie@nc1n). Third, to prevent backups at the gateway, your TCP/IP node must be on the air regularly. Send DoC a message if you want more information, or wish to request that forwarding be established.

One final note: you can SEND packet bulletins (e.g., to all%nebbs@bbs.wa1phy) through the gateway. It's possible to pass categories of RECEIVED bulletins; for details, contact DoC. However, to see all bulletins, your best bet is still to log into a BBS using regular AX.25 packet.

Host Name: balrog.k8lt.ampr.org
Sysop: Gary Grebus, K8LT
For info, contact:
glg@balrog.k8lt.ampr.org

Gary redistributes the Internet "tcp-group" mailing list. This is the mailing list of people on the Internet involved in developing and applying the KA9Q software. The list is archived, in batches available for FTP, at ka1mf. Gary's willing to mail this to other hosts that are up most of the time.

Gary also has an experimental mail gateway between the local amprnet and Usenet. He automatically routes ham-to-usenet mail sent to:

user%host@balrog.k8lt or
host1!host2!user@balrog.k8lt

To contribute additions to this list, please contact Charlie NC1N by sending SMTP mail to: nc1n@nc1n.ampr.org

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WINTER EDITION

Broadcasts and Programs for Radio/Computer Hobbyists

Day	Time(EST)	Frequency(MHz)	Station	Program
SAT	10:45 a.m	15.430 17.830 21.630	Swiss Radio	Swiss Shortwave Program
	12:05 p.m.	9.625 11.720	Canada (CBC)	Quirks & Quarks Science Show.
	4-6 p.m.	1150 KHz (AM)	Boston, MA	Computer Talk*
	4:10 pm	17.800 15.580 15.410	VOA	Communications World
	7:36 p.m.	5.960 9.755	R. Canada	SWL Digest.
	9:18 p.m.	6.135 9.885 12.035	Swiss Radio	Swiss Shortwave Program.
	10:30 p.m.	9.535 11.930	Bonaire	Wavelength hosted by PJ4CR**
	11:18 p.m.	6.135 9.885 12.035	Swiss Radio	Swiss Shortwave Program
SUN	10:00 a.m.	7.240 LSB	East USA	ANARC SWL Net
	6:06 p.m.	9.755 11.730	R. Canada	SWL Digest
MON	7:50 p.m.	15.560 6.165 6.020	R. Netherlands	Research File (Science)
	10:50 p.m.	11.720 9.590	R. Netherlands	Research File (Science)
TUE	10:40 a.m.	17.880	R. Sweden	Sweden Calling DXers
	10:40 p.m.	11.705 9.695	R. Sweden	Sweden Calling DXers
THU	7:50 p.m.	15.560 6.165 6.020	R. Netherlands	Media Network
	10:50 p.m.	11.720 9.590	R. Netherlands	Media Network
Daily	Noon	1120 KHz (AM)	Concord, MA	BBC Newsreel
Daily	6-7 pm	1120 KHz (AM)	Concord, MA	BBC World News
M-F	7:30 pm	1120 KHz (AM)	Concord, MA	CBC As It Happens
M-F	9-10 pm	1120 KHz (AM)	Concord, MA	BBC World News

*Hosted by Bill Claff, Boston Computer Society IBM PC Technical Director
** Program Host, Chuck Roswell PJ4CR, is our guest speaker on December 4. See Last Page.

Frequencies and Times are Subject to Change

Tell Us A Little About Yourself, to Help Plan Our Group Future
Please Print Clearly

1) Name _____ 2) BCS Member Number _____
3) Mail Address _____
4) City, State, ZIP _____
5) Phone Number: Home _____ Work _____
6) Are you an Amateur Radio Operator? _____ If Yes, Call _____
7) List BCS Groups you belong to: _____
8) When checking off BCS Groups to join, is Amateur Radio your:
First Choice: _____ Second Choice: _____ Third or Higher Choice: _____
9) a) Have you attended our meetings?
No: ___ Yes, but rarely: _____ Occasionally: _____ Almost Always _____
b) How do you usually learn about our meetings ?
Wireless Bitstream ____ BCS Update ____ Telephone BBS _____ Packet ___ Other _____
c) If you don't come often, why not? _____
10) What personal computers do you use? _____
List computer interests: _____
11) Are you actively on-the-air? _____
What modes/bands? _____
12) List your major radio interests: _____
13) Are you interested in helping our group by volunteering? _____
14) What would you like to do: (Check off all that apply)
a) Group Director _____ b) Meeting Planner _____
c) Newsletter _____ d) Advertising Manager _____
e) Interest Group Leader _____ What Interests _____
f) Beginner Support _____ g) Phone Support _____
h) Meeting Speaker _____ What Topic(s): _____
i) Overall Software Library Coordinator _____
j) Software Librarian _____ List computers you could support _____
k) Correspondence _____ l) Arranging BCS Discounts with Vendors: ____
l) Please List any other activities you would like to volunteer and help with below:

_____

If you would like, please include any additional comments or suggestions on a separate page and mail this questionnaire to:

Tom Walsh K1TW, 9 Wildwood Drive, Bedford, MA 01730

Future BCS Amateur Radio SIG Meetings

Mark these in your calendar now!

For latest meeting information, please check the BCS Update Calendar section. For last minute information, check our Ham Radio Section of the BCS Mac TBBS (617-625-6747) and packet radio about a week prior to the meeting.

Come at 7 P.M. to meet other members or seek help. Meetings start promptly at 7:30 P.M..

Tuesday, November 6, 1990

Question and Answer session with our Digital Radio and tcp/ip experts.

Tuesday, December 4, 1990

Chuck Roswell, PJ4CR and host of the weekly shortwave program *Bonaire Wavelength* comes to Boston to talk about Amateur Radio on the Caribbean Island of Bonaire and give us a tour of Transworld Radio's Shortwave Facility on Bonaire. *(Hear Bonaire Wavelength Sun @0330 UTC on 11.930 i.e., Sat eve US Time)*

Tuesday, January 8, 1991

"The Forgotten World from DC to 500 KHz" by Henry Lee, III - KB1PE.

Tuesday, February 5, 1991

"Help plan the Future of our Group". This very important meeting will have a major impact on where we go with the BCS Amateur Radio SIG. Please plan on coming to this meeting (or write to us). What we do next year will be determined by the interests and involvement of our members.

Do you have an idea for a future meeting or want to help organize our programs? Let Tom Walsh, K1TW know!

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